

**TERMSERIES  
TRZ 48VUC 1CO****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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**Product image**

Similar to illustration

TERMSERIES relay module, complete modules consisting of

a relay and a base with AC/DC/UC coils,  
available in different versions:

- With screw and tension-clamp connection
- AgNi contact, optionally with hard gold-plated contacts
- 1 and 2 COs
- Optionally with multiple-voltage input: 24...230 V UC
- With various protective circuits  
in the input (free-wheel diode, RC element)
- Illuminated ejection lever

**General ordering data**

|            |                                                                                                                                                                 |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type       | TRZ 48VUC 1CO                                                                                                                                                   |
| Order No.  | <a href="#">1122900000</a>                                                                                                                                      |
| Version    | TERMSERIES, Relay module, Number of contacts: 1, CO contact AgNi, Rated control voltage: 48 V UC $\pm 10\%$ , Continuous current: 6 A, Tension-clamp connection |
| GTIN (EAN) | 4032248904877                                                                                                                                                   |
| Qty.       | 10 pc(s).                                                                                                                                                       |

Creation date September 6, 2020 5:48:14 AM CEST

Catalogue status 28.08.2020 / We reserve the right to make technical changes.

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**Technical data**
**Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 6.4 mm  | Width (inches)  | 0.252 inch |
| Height     | 90.5 mm | Height (inches) | 3.563 inch |
| Depth      | 87.8 mm | Depth (inches)  | 3.457 inch |
| Net weight | 32.1 g  |                 |            |

**Temperatures**

|                             |                                                                            |                             |                |
|-----------------------------|----------------------------------------------------------------------------|-----------------------------|----------------|
| Humidity                    | 5-95% relative humidity,<br>T <sub>u</sub> = 40°C, without<br>condensation | Operating temperature, max. | 60 °C          |
| Operating temperature, min. | -40 °C                                                                     | Storage temperature, max.   | 85 °C          |
| Storage temperature, min.   | -40 °C                                                                     | Operating temperature       | -40 °C...60 °C |
| Storage temperature         | -40 °C...85 °C                                                             |                             |                |

**Environmental Product Compliance**

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

**Rated data UL**

|                                               |                                    |                                                      |
|-----------------------------------------------|------------------------------------|------------------------------------------------------|
| Ambient temperature (operational), max. 60 °C | Connection cross-section AWG, min. | AWG 26                                               |
| Connection cross-section AWG, max.            | Type of conductor                  | rigid copper conductor,<br>flexible copper conductor |
| Pollution severity level                      | Altitude                           | ≤ 2000 m, above sea level                            |

**Input**

|                                                                                   |                                  |                                       |                                          |
|-----------------------------------------------------------------------------------|----------------------------------|---------------------------------------|------------------------------------------|
| Rated control voltage                                                             | 48 V UC ± 10 %                   | Rated current AC                      | 8 mA                                     |
| Rated current DC                                                                  | 7 mA                             | Power rating                          | 240 mVA / 192 mW                         |
| Pull-in/drop-out voltage, typ.                                                    | 32 V / 9 V AC<br>33 V / 8.5 V DC | Pull-in/drop-out current, typ.        | 5.3 mA / 1.2 mA AC<br>4.5 mA / 0.8 mA DC |
| Status indicator                                                                  | Green LED                        | Protective circuit                    | Rectifier                                |
| Coil voltage of the replacement relay<br>deviating from the rated control voltage | Yes                              | Coil voltage of the replacement relay | 24 V DC                                  |

**Output**

|                                         |                                         |
|-----------------------------------------|-----------------------------------------|
| Rated switching voltage                 | 250 V AC                                |
| Rated switching voltage                 | Voltage type AC<br>max. 250 V           |
| Max. switching voltage, AC              | 250 V                                   |
| Max. switching voltage, DC              | 250 V                                   |
| Continuous current                      | 6 A                                     |
| Continuous current                      | Current 6 A                             |
| Inrush current                          | 20 A / 20 ms                            |
| AC switching capacity (resistive), max. | 1500 VA                                 |
| DC switching capacity (resistive), max. | 144 W @ 24 V                            |
| Switch-on delay                         | ≤ 9 ms                                  |
| Switch-off delay                        | < 25 ms                                 |
| Min. switching power                    | 1 mA @ 24 V, 10 mA @ 12 V, 100 mA @ 5 V |
| Max. switching frequency at rated load  | 0.1 Hz                                  |

**Contact data**

|              |                     |                         |                                      |
|--------------|---------------------|-------------------------|--------------------------------------|
| Contact type | 1 CO contact (AgNi) | Mechanical service life | 5 x 10 <sup>6</sup> switching cycles |
|--------------|---------------------|-------------------------|--------------------------------------|

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**Technical data****General data**

|                                      |       |             |       |
|--------------------------------------|-------|-------------|-------|
| Rail                                 | TS 35 | Test button | No    |
| Mechanical switch position indicator | No    | Colour      | black |
| UL 94 flammability rating            | V-0   |             |       |

**Insulation coordination**

|                                     |                              |                                                |                              |
|-------------------------------------|------------------------------|------------------------------------------------|------------------------------|
| Rated voltage                       | 300 V                        | Surge voltage category                         | III                          |
| Pollution severity                  | 2                            | Protection degree                              | IP20                         |
| Dielectric strength, Input/Output   | 4 kV <sub>eff</sub> / 1 Min. | Creepage and clearance distance input – output | ≥ 5.5 mm                     |
| Dielectric strength of open contact | 1 kV <sub>eff</sub> / 1 min  | Dielectric strength to mounting rail           | 4 kV <sub>eff</sub> / 1 Min. |
| Impulse withstand voltage           | 6 kV (1.2/50 µs)             |                                                |                              |

**Further details of approvals / standards**

|                         |                                        |                         |            |
|-------------------------|----------------------------------------|-------------------------|------------|
| Standards               | EN 50178, EN 55011, EN 61000-6-1, 2, 4 | Certificate No. (DNVGL) | TAA00001E5 |
| Certificate no. (cULus) | E141197                                |                         |            |

**Connection data**

|                                                                                         |                          |                                                                                         |                      |
|-----------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------|----------------------|
| Wire connection method                                                                  | Tension-clamp connection | Stripping length, rated connection                                                      | 8 mm                 |
| Clamping range, rated connection                                                        | 1.5 mm <sup>2</sup>      | Clamping range, min.                                                                    | 0.14 mm <sup>2</sup> |
| Clamping range, max.                                                                    | 2.5 mm <sup>2</sup>      | Wire connection cross section AWG, min.                                                 | AWG 26               |
| Wire connection cross section AWG, max.                                                 | AWG 14                   | Wire cross-section, solid, min.                                                         | 0.14 mm <sup>2</sup> |
| Wire cross-section, solid, max.                                                         | 2.5 mm <sup>2</sup>      | Wire connection cross-section, finely stranded, min.                                    | 0.14 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, max.                                    | 2.5 mm <sup>2</sup>      | Wire cross-section, finely stranded, min. (AWG)                                         | AWG 26               |
| Wire cross-section, finely stranded, max. (AWG)                                         | AWG 14                   | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.14 mm <sup>2</sup> |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 1.5 mm <sup>2</sup>      | Conductor cross-section, flexible, AEH (DIN 46228-1), min.                              | 0.14 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max.                              | 1.5 mm <sup>2</sup>      | Twin wire-end ferrules, min.                                                            | 0.5 mm <sup>2</sup>  |
| Twin wire-end ferrules, max.                                                            | 1 mm <sup>2</sup>        | Blade size                                                                              | 0.6 x 3.5 mm         |
| Gauge to IEC 60947-1                                                                    | A1, B1                   |                                                                                         |                      |

**Classifications**

|             |             |            |             |
|-------------|-------------|------------|-------------|
| ETIM 6.0    | EC001437    | ETIM 7.0   | EC001437    |
| eClass 9.0  | 27-37-16-01 | eClass 9.1 | 27-37-16-01 |
| eClass 10.0 | 27-37-16-01 |            |             |

**Approvals**

Approvals



ROHS Conform

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## Technical data

### Downloads

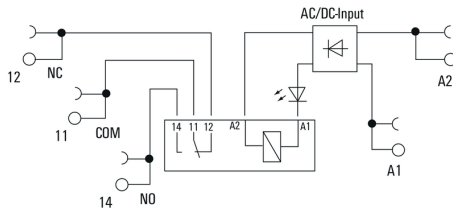
|                                             |                                                                         |
|---------------------------------------------|-------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.2 ELECTR 18/19 EN</a>                                 |
| Engineering Data                            | <a href="#">EPLAN, WSCAD, Zuken E3.S</a>                                |
| Engineering Data                            | <a href="#">STEP</a>                                                    |
| User Documentation                          | <a href="#">Beipackzettel / Package Insert – multilingual</a>           |

## TERMSERIES TRZ 48VUC 1CO

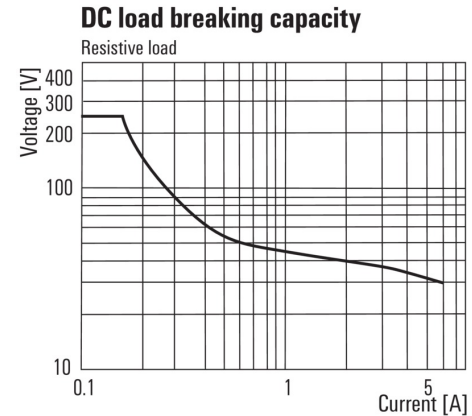
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## Drawings

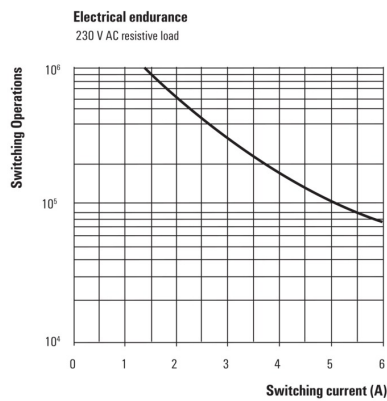
### Wiring diagram



### Graph

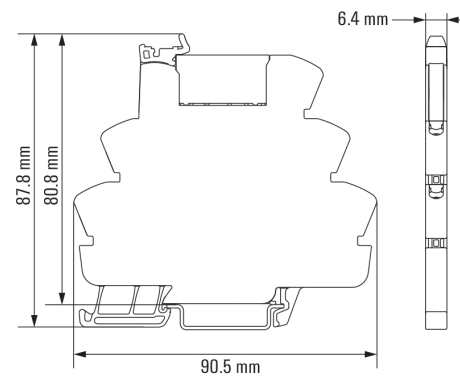


### Graph



Electrical service life 230 V AC resistive load  
230 V AC resistive load

### Dimensional drawing



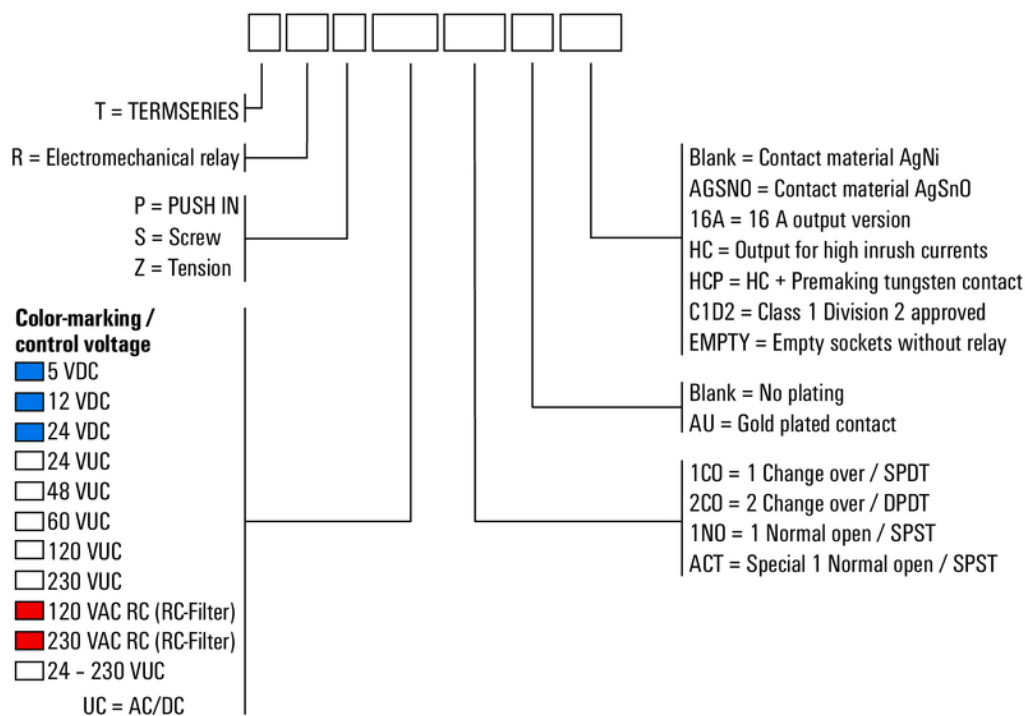
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## Drawings

### Miscellaneous

### Type code TERMSERIES electromechanical relay versions



Type codes